

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

EHLICH *et al.*

Appl. No.: 10/594,177 (U.S. National
Phase of PCT/EP2004/007529)

§371 date: August 13, 2007

For: **Secreted Proteins as Markers for
Cell Differentiation**

Confirmation No.: 5698

Art Unit: 1633

Examiner: HIRIYANNA, Kelaginamane T.

Atty. Docket: 2590.0050002/EJH/SAC

**Request for Corrected Patent Application Publication
Under 37 C.F.R. § 1.221(b)**

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Mail Stop: PGPUB

Sir:

Pursuant to 37 C.F.R. § 1.221(b), Applicants respectfully request that the captioned publication be republished to correct material errors by the USPTO. Specifically, the following corrections are requested:

Corrections Requested in Publication
On Face Page at section (76) Inventors, please add "Heribert Bohlen, Köln (DE)" and "Silke Schwengberg, Düren (DE)" below "Andreas Ehlich, Mechernich (DE)".

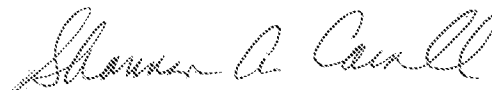
Support for the requested corrections in the publication can be found on the face page in the corresponding published PCT application, WO 2005/005662 A2.

Copies of the affected pages of the publication are enclosed with the requested corrections noted. Republication of the captioned publication to correct material mistakes made by the USPTO is believed proper and issuance thereof is respectfully requested.

This request is being made within two months from the date of publication of the captioned patent application. No fee is believed to be due. The Commissioner is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in cursive script, appearing to read "Shannon A. Carroll".

Shannon A. Carroll, Ph.D.
Attorney for Applicants
Registration No. 58,240

Date: March 1, 2010

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(19) **United States**(12) **Patent Application Publication**

Ehlich

(10) **Pub. No.: US 2009/0328243 A1**(43) **Pub. Date: Dec. 31, 2009**(54) **SECRETED PROTEINS AS MARKERS FOR
CELL DIFFERENTIATION****Publication Classification**(76) **Inventor: Andreas Ehlich, Mechernich (DE)**

Correspondence Address:

STERNE, KESSLER, GOLDSTEIN & FOX P.L.**L.C.****1100 NEW YORK AVENUE, N.W.****WASHINGTON, DC 20005 (US)**(51) **Int. Cl.****A01K 67/027**

(2006.01)

C12Q 1/02

(2006.01)

C12Q 1/42

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C12Q 1/40

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(52) **U.S. Cl.****800/13; 435/29; 435/21; 435/22;
536/24.2; 435/325; 435/1.1; 506/14; 506/39;
435/6; 435/320.1; 514/557**

(57)

ABSTRACT

Provided are means and methods for in vitro and in vivo detection of chemically induced effects on embryonic development and differentiation for the purpose of embryotoxicity/teratogenicity screening as well as for the identification of pharmaceuticals such as growth and tissue promoting factors based on differentiating pluripotent embryonic stem (ES) cells. The assays are based on the use of transgenic ES cells and non-human animals comprising such ES cells or derivatives thereof, wherein said ES cells are characterized by the differentiation-dependent expression of a secreted reporter protein; in particular secreted embryonic alkaline phosphatase (SEAP).

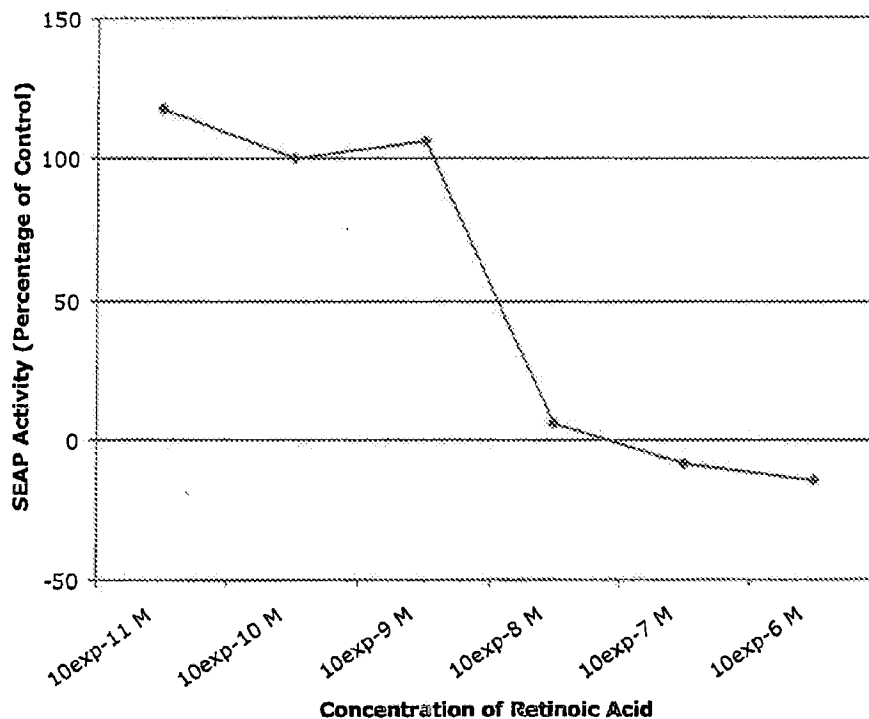
§ 371 (c)(1),

(2), (4) Date: **Aug. 13, 2007****Related U.S. Application Data**

(60) Provisional application No. 60/485,462, filed on Jul. 8, 2003.

(30) **Foreign Application Priority Data**

Jul. 8, 2003 (EP) 03015400.0



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03015400.9 8 July 2003 (08.07.2003) EP
60/485,462 8 July 2003 (08.07.2003) US
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- (72) Inventors; and
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- (74) Agent: STEINECKE, Peter; Müller, Fotner, Steinecke, P.O. Box 31 01 40, 80102 Munich (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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WO 2005/005662 A2

(54) Title: SECRETED PROTEINS AS MARKERS FOR CELL DIFFERENTIATION

(57) Abstract: Provided are means and methods for in vitro and in vivo detection of chemically induced effects on embryonic development and differentiation for the purpose of embryotoxicity/teratogenicity screening as well as for the identification of pharmaceuticals such as growth and tissue promoting factors based on differentiating pluripotent embryonic stem (ES) cells. The assays are based on the use of transgenic ES cells and non-human animals comprising such ES cells or derivatives thereof, wherein said ES cells are characterized by the differentiation-dependent expression of a secreted reporter protein; in particular secreted embryonic alkaline phosphatase (SEAP).

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PO Box 1450
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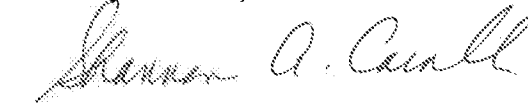
Mail Stop Missing Parts

Sir:

Applicants hereby request that a corrected Official Filing Receipt be issued and sent to the undersigned representative. Specifically, the following corrections to the Official Filing Receipt are requested: **Under "Applicant(s)", please insert --Heribert Bohlen, Köln, GERMANY-- and also insert --Silke Schwengberg, Düren, GERMANY-- below Andreas Ehlich, Mechernich, GERMANY.** In support of the above request, a marked-up copy of the instant Official Filing Receipt is enclosed to show the corrections. It is requested that a corrected Official Filing Receipt be issued, and sent to the undersigned at the earliest possible time.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



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Date: March 1, 2010

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
10/594,177	08/13/2007	1632	3079	2590.0050002/EJH/SAC	54	2

CONFIRMATION NO. 5698

26111

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

FILING RECEIPT



Date Mailed: 09/18/2009

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Andreas Ehlich, Mechernich, GERMANY;
Insert -- Heribert Bohlen, Köln, Germany; --
Power of Attorney: *-- Silke Schwengberg, Düren, Germany --*
John Jones--44174

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/EP04/07529 07/08/2004
which claims benefit of 60/485,462 07/08/2003

Foreign Applications

EUROPEAN PATENT OFFICE (EPO) 03015400.0 07/08/2003

If Required, Foreign Filing License Granted: 09/16/2009

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 10/594,177**

Projected Publication Date: 12/31/2009

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Secreted proteins as markers for cell differentiation

Preliminary Class

435

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